

**IN THE SPECIFICATION**

Please replace the paragraph beginning at page 2, line 25, with the following:

Different sized blocks in an image can be coded with a discrete cosine transform. For example, 16 x 16, 16 x 8, 8 x 16, 8 x 8, 8 x 4, 4 x 8, and 4 x 4 macroblocks can be transformed using horizontal and vertical transform matrices of size 4 x 4, 8 x 8, and 16 x 16. The macroblocks are transformed according to the following:

$$C_{n \times m} = T_m \times B_{n \times m} \times T_n^T,$$

where  $B_{n \times m}$  denotes an image block with  $n$  ~~pixels~~ columns and  $m$  rows. The terms  $T_n$  and  $T_m$  represent the horizontal and vertical transform matrices of size  $n \times n$  and  $m \times m$ , respectively. The term  $C_{n \times m}$  denotes the cosine transformed  $n \times m$  block.

Please replace the paragraph beginning at page 7, line 23, with the following:

The data is decoded by first inverse variable length coding the data in block 26 and inverse quantizing (IQ) the data in block 25. An Inverse Discrete Cosine Transform (IDCT) in block 24 uses the optimized integer cosine matrices for inverse cosine transforming the decoded data. The inverse cosine transform is implemented by applying inverse integer matrices for the matrices shown in Figs. 1-3. For example, the inverse cosine transform is generated according to the following:

$$B_{n \times m} = T_m^T \times C_{n \times m} \times T_n,$$

where  $B_{n \times m}$  denotes the inverse transformed image block with  $n$  ~~pixels~~ columns and  $m$  rows,  $T_n$  and  $T_m$  represent the horizontal and vertical integer transform matrices of size  $n \times n$  and  $m \times m$ , respectively, and  $C_{n \times m}$  denotes the cosine transformed  $n \times m$  image block.

Please replace the equations "E" at pages 3-5, with the following:

Page 3:

$$E_4 = \frac{1}{4} \sum_{i=0}^3 \sum_{\substack{j=0 \\ j \neq i}}^3 \frac{|d_i(j)|}{|d_i(i)|}$$

Page 4:

$$E_8 = \frac{1}{8} \sum_{i=0}^7 \sum_{\substack{j=0 \\ j \neq i}}^7 \frac{|d_i(j)|}{|d_i(i)|}$$

Page 5:

$$E_{16} = \frac{1}{16} \sum_{i=0}^{15} \sum_{\substack{j=0 \\ j \neq i}}^{15} \frac{|d_i(j)|}{|d_i(i)|}$$

The changes above are typographical errors in the specification that do not add any new subject matter. These changes to the equations are also made to be consistent with the other written description in the specification and drawings and also do not add any new subject matter.